Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) An isolated *Bacillus* PolC subunit of a DNA polymerase III-type enzyme, the isolated PolC subunit being thermostable and ~~subunit:~~

~~(i) comprising the amino acid sequence of SEQ ID NO: 184; or~~

~~(ii) being~~ encoded by a nucleic acid molecule hybridizing to the complete complement of SEQ ID NO: 183 under hybridization conditions that are at least as stringent as use of a medium comprising ~~at most about~~ 0.9M sodium citrate buffer at a temperature of ~~at least about~~ 37°C.

2. (Original) The isolated *Bacillus* PolC subunit according to claim 1 wherein the *Bacillus* species is *Bacillus stearothermophilus*.

3-4 (Cancelled)

5. (Original) The isolated *Bacillus* PolC subunit according to claim 1 wherein the PolC subunit is purified.

6. (Original) A DNA polymerase III core complex comprising the *Bacillus* PolC subunit according to claim 1.

7. (Original) A DNA polymerase III-type enzyme complex comprising the core complex according to claim 6.

8. (Original) A DNA polymerase III-type enzyme complex comprising the *Bacillus* PolC subunit according to claim 1.

9. (Original) A kit comprising:

a container that contains therein either a deoxynucleoside triphosphate or a dideoxynucleoside triphosphate; and

a container that contains therein the polymerase III-type enzyme complex according to claim 8.

10. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the hybridization conditions comprise a medium comprising 20% formamide and 0.9M sodium citrate buffer and at a temperature of 42°C, followed by washing in 0.2X sodium citrate buffer at 42°C.

11. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the hybridization conditions comprise a medium comprising 5X sodium citrate buffer and at a temperature of 65°C, followed by washing in 5X sodium citrate buffer at 65°C.

12. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the PolC subunit is at least 80 percent identical to the amino acid sequence of SEQ ID NO: 184.

13. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the PolC subunit is at least 90 percent identical to the amino acid sequence of SEQ ID NO: 184.

14. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the PolC subunit is at least 95 percent identical to the amino acid sequence of SEQ ID NO: 184.

15. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the encoding nucleic acid molecule is at least 90 percent identical to the nucleotide sequence of SEQ ID NO: 183.

16. (New) The isolated *Bacillus* PolC subunit according to claim 1, wherein the encoding nucleic acid molecule is at least 95 percent identical to the nucleotide sequence of SEQ ID NO: 183.

17. (New) An isolated PolC subunit of a DNA polymerase III-type enzyme comprising the amino acid sequence of SEQ ID NO: 184.

18. (New) A DNA polymerase III core complex comprising the PolC subunit according to claim 17.

19. (New) A DNA polymerase III-type enzyme complex comprising the core complex according to claim 18.

20. (New) A DNA polymerase III-type enzyme complex comprising the PolC subunit according to claim 17.

21. (New) A kit comprising:

a container that contains therein either a deoxynucleoside triphosphate or a dideoxynucleoside triphosphate; and

a container that contains therein the polymerase III-type enzyme complex according to claim 20.